

**TRANSMITTAL OF APPEAL BRIEF**Docket No.
59439(70904)

In re Application of: Takashi Imai et al.

Application No.
10/603,721-Conf. #3344Filing Date
June 24, 2003Examiner
S. K. BeckerGroup Art Unit
2179

Invention: USER INTERFACING DISPLAY APPARATUS AND IMAGE FORMING APPARATUS

TO THE COMMISSIONER OF PATENTS:Transmitted herewith is the Appeal Brief in this application, with respect to the Notice of Appeal
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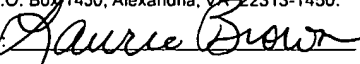
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(Laurie Brown)



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 Peter J. Manus Attorney Reg. No. : 26,766 EDWARDS ANGELL PALMER & DODGE LLP P.O. Box 55874 Boston, Massachusetts 02205 (617) 517-5530			Dated: <u>November 24, 2008</u>	
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Docket No.: 59439(70904)
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Takashi Imai et al.

Application No.: 10/603,721

Confirmation No.: 3344

Filed: June 24, 2003

Art Unit: 2179

For: USER INTERFACING DISPLAY
APPARATUS AND IMAGE FORMING
APPARATUS

Examiner: S. K. Becker

APPEAL BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This brief is filed in accordance with 37 CFR 41.37 after the Notice of Appeal filed in this case on June 16, 2008, and is in furtherance of said Notice of Appeal. This brief is being filed within four months of the Notice of Panel Decision from the Pre-Appeal Brief Review mailed on July 22, 2008 (November 22, 2008 being a Saturday).

The fees required under § 41.20(b)(2), and any required petition for extension of time for filing this brief and fees therefore are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

This brief contains items under the following headings as required by 37 C.F.R. § 41.37 and M.P.E.P. § 1205.2:

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|------|-----------------------------------|
| I. | Real Party In Interest |
| II | Related Appeals and Interferences |
| III. | Status of Claims |
| IV. | Status of Amendments |
| V. | Summary of Claimed Subject Matter |

VI.	Grounds of Rejection to be Reviewed on Appeal
VII.	Argument
VIII.	Claims
Appendix A	Claims
Appendix B	Evidence
Appendix C	Related Proceedings

I. REAL PARTY IN INTEREST

The real party in interest for this appeal is Sharp Kabushiki Kaisha. The assignment of the invention to this corporation was recorded on June 24, 2003 at Reel/Frame 014240/0159, and a corrected assignment was recorded on April 4, 2004 at Reel/Frame 015272/0818.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals, interferences, or judicial proceedings known to Appellant, Appellant's legal representative or the assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

A. Total Number of Claims in Application

There are 17 claims pending in application.

B. Current Status of Claims

1. Claims canceled: 5
2. Claims withdrawn from consideration but not canceled: none
3. Claims pending: 1-4, 6-18
4. Claims allowed: none
5. Claims rejected: 1-4, 6-18

C. Claims On Appeal

The claims on appeal are claims 1-4, 6-18

IV. STATUS OF AMENDMENTS

There is no amendment after final to the claims.

A clean set of the claims on appeal is set forth in the Claim Appendix hereto.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The present invention addresses the problem that if one can interrupt a job being processed by the electronic apparatus, confusion can arise as to whether a displayed pop-up detail setting is associated with the job being run before or after the interruption (p. 4, line 23 to p. 5, line 11).

All of the claims on appeal include an interface display apparatus e.g. control panel 50 (Figs. 3, 4), 50a (Fig. 10) in an electronic apparatus such as an image forming apparatus, described in the specification with reference to a digital photocopier 1 (p. 18, line 25 to p. 19, line 7). The user interface control panel 50, 50a includes a liquid crystal display (LCD) section 52 (Figs. 1, 2, 4-6, 9 and 20) and a display control section 69 (Fig. 3; p. 26, lines 18-21).

The operation panel 50, 50a has a hard key group 51 and soft keys on the LCD 52 (p. 26, line 22 to p. 27, line 4; Figs. 1, 4-6, 9 and 10). Pressing a detail setting key (e.g. exemplary detail setting keys 61-66 shown in Figs. 4 and 10) produces on the LCD 52 a pop-up display of the detail item (see e.g. pop-up 67, Fig. 1, displaying details of detail setting key 68).

Claims 1, 16 and 17

Claims 1 and 16 are directed to a user interfacing display apparatus (operation panels 50, 50a) for use in electronic apparatus that can perform a plurality of jobs in accordance with certain detail settings (e.g., copy ratio 66, paper selection 65) (p. 17, line 24 to p. 18, line 14). The electronic apparatus is described with reference to a digital photocopier 1, but can be other apparatus (p. 40, lines 1-7). Claim 17 is directed to an image forming apparatus that comprises, inter alia, a user interfacing display apparatus with the features delineated for this display apparatus in claim 1.

The electronic apparatus is capable of performing plural jobs (Fig. 4, p. 30, lines 11-19), e.g. a (preceding) job 57a that is currently being processed and a (standby) job 57b that is standing by to be processed next, or further stand-by jobs.

The user interface apparatus includes as a claim element an interruption key (60, 70; Figs. 4-6 and 10). As stated at page 30, lines 22-24, "The interruption key 60 is used, for example, in case a photocopy job is in process, so as to stop photocopying and to perform another process." Pressing the key instructs an interruption and transmits interruption instructions to the control means of the electric apparatus (described as the control section 7) (Figs. 2 and 3). The control section is operably connected to a display control means (described with reference to exemplary display control section 69 (Fig. 3) of the operation panel 80. The control section 7 and display control section 69 can share functions (p. 39, lines 3-17).

The soft interrupt key 60 can change its state, e.g. to a grey display 60a (Fig. 1), or a partially obscured display 60b (Fig. 9). In the case of a hard key interrupt key 70 (Fig. 10), the specification describes the key as having a lamp that be ON or OFF, to change state (p. 36, line 19 to p. 37, line 17). The interrupt key remains displaced through a change of state.

The invention as claimed also requires an interconnection between the interrupt key change of state and the selection of a detail setting for one of the plural jobs.

This connection is through the claimed display section (58 in the Figures; p. 29, lines 8-24) of the LCD 52 of interfacing display apparatus 50, 50a (p. 30, line 11 to p. 33, line 2). In particular, display control means (sections 7, 69), or display control section 69, pop-ups on this display section the detail settings (e.g. 68a - 68d in Fig. 1) associated with a selected detail setting key (e.g. "copy ratio" key 68) for one of the jobs. Part (iv) of claims 1 and 16 specifies as a result of selecting of a detail setting key, the interruption key changes its display state, and remains displayed on the display section. (Compare, e.g., 60a in Fig. 1 with 60 in Fig. 5; see also p. 29, lines 23-24; p. 31, line 15; page 32, line 5, and p. 34, lines 15-18).

Claims 2 and 9

Claims 2 and 9 specify that when a pop-up of a detail setting is performed, the interrupt key is inactivated (claim 2), and this unavailability is displayed through the change in the display state of the interrupt key (claim 9). Claim 2 specifies that the display control means transmits (Fig. 7, step S7) instruction to the control means to "invalidate" any interruption instruction.

Claims 3 and 12

Claim 3 specifies that upon ending the popping up display of the detail setting (step 39 in Fig. 7), the display control means transmits (step S10 in Fig. 7) the control means instruction to validate an interrupt instruction (p 32, lines 9-19; p. 38, lines 22-25). Claim 12 relates to an associated return of the interrupt key to its state prior to the popping up (p. 32, lines 18-23; p. 35, lines 9-19).

Claims 4 and 7

Claims 4 and 7 define the nature of the interrupt key as either a soft key (claim 4) or a hard key (claim 7). References to these features in the specification and drawings are noted above with respect to the discussion of the independent claims 1, 16 and 17.

Claims 6, 8, 10 and 11

Claims 6, 8, 10 and 11 specify the nature of changes of states of the interrupt key. It can be partially hidden (claim 6; Fig. 9; p. 36, lines 7-10), or indicated by a lamp key on or off (claim 8, Fig. 10; p. 36, line 19 to p. 37, line 17), or indicated by the "thickness" key 60 (claim 10; Fig. 1, "thickened" key 60a; p. 31, line 20 to p. 32, line 5), or using a dotted line display of the key (claim 11).

Claims 13-15

Claims 13-15 specify that the claimed interface display apparatus has a warning means (claim 13) to warn the user that a popping up is being performed (displayed) if the interrupt key is selected at this time (p. 35, lines 17-24). The warning can be a message (claim 14; p. 35, line 20) or a sound (claim 15; p. 35, lines 23-24).

Claim 18

Claim 18 depends from claim 17 and specifies that the image forming apparatus is a digital photocopying machine (Figs. 2,3; p. 18, line 25 to p. 19, lines 7).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The issues on Appeal as to the rejection, or the grounds of rejection to be reviewed on appeal, are:

1. Whether claims 1-4, 6, 9, 12-14 and 16-18 are obvious within the meaning of 35 U.S.C. §103 as by Beaudet et al. [US Published Application 2002/0048035] in view of Tezuka et al. [USP 5,845,078].

2. Whether claims 7-8 are obvious within the meaning of 35 U.S.C. §103 as by Beaudet et al. [US Published Application 2002/0048035] in view of Tezuka et al. [USP 5,845,078] and further in view of Sato et al. [JP 03175065].

3. Whether claims 10 and 11 are obvious within the meaning of 35 U.S.C. §103 as by Beaudet et al. [US Published Application 2002/0048035] in view of Tezuka et al. [USP 5,845,078] and further in view of Hirayama [US Published Application 2002/0050996].

4. Whether claim 15 is obvious within the meaning of 35 U.S.C. §103 as by Beaudet et al. [US Published Application 2002/0048035] in view of Tezuka et al. [USP 5,845,078] and further in view of Sadakuni [USP 6,385,412].

VII. ARGUMENT

As to each issue Applicant has provided a separate argument applicable to the issue as indicated above. Unless otherwise indicated, any reference hereinafter in the Argument to specific reference numerals, pages or figures shall be to the pages and drawings figures of the subject application and the reference numerals used therein.

FIRST ISSUE**CLAIMS 1-4, 6, 9, 12-14 AND 16-18 ARE NOT OBVIOUS WITHIN THE MEANING OF 35 U.S.C. §103 AS BY BEAUDET ET AL. [US PUBLISHED APPLICATION 2002/0048035] IN VIEW OF TEZUKA ET AL. [USP 5,845,078]**

In the pending Final Action, the Examiner rejects independent claims 1, 16 and 17, citing Beaudet as teaching a “user interfacing display apparatus” for use in an “electronic apparatus” using a detail setting key for detecting what a user selects, and for performing detail setting of a job as to what a user selects (pages 4 and 5, paragraph[0043]).” Beaudet is also cited at page 1, paragraph [0008] for “control means capable of performing a plurality of jobs respectively in accordance with desired detail settings” and suspending a job for another using an interruption key. The “Interrupt Print Job” key in Beaudet (Figs. 4C, 4D) is also cited as 1) producing transmitting interrupt instructions to the control means “to change a display state thereof;” 2) having a display section for the “desired detail settings” as shown in Beaudet Figs. 4D and 4E and discussed on pages 4 and 5, paragraphs [0041] and [0042]; and 3) popping up on the display section a detail item when a detail setting key is selected.

Beaudet describes an apparatus that operates as either a copier (with scanned hard copy input) or a printer (with rasterized electronic data input). The purpose of Beaudet is to manage the use of the apparatus in an efficient way given that two sources of input both use the same “marking engine” to reproduce the information on copy sheets. The Beaudet solution centers on a “control means” that controls which information is reproduced, in part, in response to “a signal representing a time of day.” Paragraphs 43 and 44 describe the overall operation of the Beaudet apparatus.

In Beaudet there is a soft interrupt key for a print job that is being run. Fig. 4C shows the control panel display with this key. The operator can then set up and run the copy job. This is apparently done using controls not shown as soft keys in Fig. 4, e.g. the hard keys 41. In particular, Figs. 4A-4K do not display copy detail settings with pop-

up detail settings, as required by all of the pending claims. The Beaudet screens 4A-4K are sequential screens. Beaudet has no detail settings in a pop-up display together with an interrupt key, so the problem of confusion as to what job is being run is not present. Nor does Beaudet teach a display where an interrupt button is displayed together with pop-up detail settings so that an operator may be confused as to whether the pop-up details relate to a job being run, or a stand-by job.

The interrupt key of Beaudet also does not change state in response to election of a detail setting key for one of plural jobs.

In contrast, in the present invention, when the detail setting of the processing mode is carried out on the device via the operational panel, the display state of the "interruption key" is changed (e.g. grayout) so that no operation is accepted. In Beaudet, the display of the "interrupt print job" key is changed to a completely different key, and an operational instruction via the "interrupt print job key" is sometimes not accepted in a manner that depends on the processing status of the job (paragraph [0040]).

Further, and in contrast to Beaudet, in the present claimed invention, the display state is changed while the "interruption key" is kept displayed on the display section. This allows an operator to confirm anytime the presence of the interruption key. The display state is changed when the operator is likely to be confused in regard to the operation, for example when the operator is carrying out the detail setting of the processing mode. This enables the operator to understand that the interruption key is not available to be used (not selectable). Beaudet does not teach or suggest these features, as admitted by the Examiner.

The Beaudet interrupt key disappears. The Examiner cites Tezuka for a key that remains displayed while its state changes (Col. 64, line 53 to Col. 65, line 25).

First, Tezuka deals with a very different technical problem, the setting up of a network such as a P.C. LAN. Tezuka has nothing to do with running multiple jobs on an electronic apparatus such as an image forming apparatus.

Second, and importantly, the art of record does not provide a teaching, motivation or suggestion, to combine Beaudet and Tezuka. Beaudet eliminates the interrupt key entirely. Without the hindsight benefit of the present invention, one would not change Beaudet to use a change of display state of the interrupt key.

In Beaudet, the interruption key is eliminated after pressing down another operating key. This arrangement is totally different from the presently claimed invention. Therefore, even if Tezuka discloses an arrangement such that "a key remains to be displayed and, meanwhile, a display state of the key is changed," such an arrangement is contradictory to the idea of the elimination of the interruption key, the idea disclosed in Beaudet. Accordingly, a person skilled in the art would not combine the contradictory arrangements of Beaudet and Tezuka.

Third, Tezuka does not teach or suggest a change of state of an interrupt key that changes its display state in connection with the selection of a detail setting key, and certainly not in connection with the activation of an interrupt key which initiates a pop-up of detail settings for a different copy job to be run under control from the same GUI as a previous copy job. In other words, there is no indication that Tezuka teaches or suggests the claimed change of display state. The claimed invention can avoid operator confusion over which job relates to a displayed pop-up detail setting. The prior art does not address or solve this problem.

Fourth, in Tezuka where an interrupt button is described, e.g. Col. 27, line 57 et seq., in connection with Figs. 25 and 29, actuation of an interrupt button causes a window (Fig. 29) to display for confirmation of the interrupt. Pressing "OK" transfers control to a different window. See also Col. 30, line 37 et seq. as well as a discussion of the use of two levels of confirmation (Col. 31, lines 41-61).

Fifth, the passage cited by the Examiner (Col. 64, line 53 to Col. 65, line 25) deals with the bit maps (Fig. 99) for each button, not how a change of state of the displayed button relates to any co-displayed pop-up detail settings.

Sixth, the Examiner relies on Figs. 4A-4K of Beaudet as teaching our claimed pop-up detail setting where the selection of one of the detail setting keys causes a change in state of a co-displayed interrupt key. For the reasons noted above, the cited Figures and passages in Beaudet do not teach or suggest pop-up detail settings of jobs, nor ones with a co-displayed interrupt key.

In an Advisory Action on June 3, 2008, the Examiner responded to the first two of the six foregoing arguments. The Examiner replied that 1) Applicants' claims are directed to a user interface display apparatus and Tezuka describes "a printer with a GUI button that changes state," and 2) without hindsight, a person of ordinary skill in the art would combine the teachings of Beaudet and Tezuka to produce the present claimed invention.

In response to the first point, Applicants agree that the Tezuka reference has a GUI and describes buttons that change states. However, the Tezuka display with an interrupt button, as noted above with respect to Figs. 25 and 29, is not on a display of detail settings of one of plural jobs on an electronic apparatus that runs plural jobs with selectable detail settings that display on pop-ups, e.g. a copier. Tezuka has a GUI used to set operator parameters of equipment in a network that includes printers. But there is no teaching or suggestion that a GUI with an interrupt button is a display of pop-up detail settings of a selected one of plural copy jobs, or that a button that can change states is controlled by a display control in coordination with such detail setting. There is a discussion of "copy interruption" at Col. 62-63 of Tezuka, but it is not the presently claimed combination of features involving an interruption key. Tezuka does not recognize the problem of possible operator confusion when the same pop-up detail setting displays in connection with interruption of one copy (or printer) job to run a second copy (or print) job, let alone teach or suggest the claimed solution.

In response to the second point, the Examiner argues that one of ordinary skill in the art would use a change in display state of a key as taught in Tezuka in combination with a detail setting pop-up (Figs. 4D and 4E, para. [0041] and [0042]. But the “Interrupt Print Job” key of Beaudet becomes a completely different button or key, “Reset Setup.” This is consistent with the successive, sequential display of different screens shown in Beaudet Fig. 4, where one operation or decision leads to a new screen, as in a logical moving through a flow chart.

This is not a pop-up of a detail setting that overlies another display (see Fig. 1 and detail pop-up 67 overlying the operation panel display on the LCD 52). An operator of the Beaudet system would not be confused as to which one of several jobs relates to the screen then displayed. Indeed, each of Beaudet’s screens 4A-4K clearly display . “COPIER,” “PRINTING,” “PRINT JOB,” “PRINT JOB: 1234,” so the operator cannot be confused as to whether the displayed screen at any moment relates to a copy job or a print job. Note also that the displayed interrupt key in Figs. 4C and 4D specifies that one is interrupting a print job. Again, the operator should not be confused as to the correlation between the screen being displayed and the job being run.

There is therefore no reason in Beaudet to continue to display the “Interrupt Print Job” key in a changed state. If the teachings of Tezuka are known to the person of ordinary skill, there is no reason to modify Beaudet to use them. In other words, the cited references provide reasons not to combine them; they teach away. The technical idea of eliminating the interrupt key is not equivalent to the technical idea of changing the state of the interrupt key.

Turning to the applicable law, Applicants are aware of the Supreme Court decision in *KSR Int’l CO. v. Teleflex, Inc.*, 127 S.Ct. 1727, 82 USPQ2d 1385 (2007) as a controlling case on the question of obviousness. Clearly, the *KSR* decision re-affirmed the *Graham v. Deere* tests for obviousness. It also clearly did not discard the teaching, suggestion, motivation [TSM] test as applied by the CAFC prior to *KSR*, and thereafter. As the Court stated at 82 USPQ2d 1396:

When it first established the requirement of demonstrating a teaching, suggestion, or motivation to combine known elements in order to show that the combination is obvious, the Court of Customs and Patent Appeals captured a helpful insight. ***[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.

Here, the Examiner has found elements of the claimed invention known independently in the prior art. This is not sufficient to establish obviousness.

Teaching, suggestion or motivation remains a useful tool in obviousness analysis to protect against hindsight reconstruction of the claimed invention from a collection of independent features in the prior art. As the CAFC stated in *Innogenetics, NV v. Abbott Labs*, 112 F.3d 1363 (Fed Cir. 2008):

We must still be careful not to allow hindsight reconstruction of references to reach the claimed invention without any explanation as to how or why the references would be combined to produce the claimed invention.

Applicants are also aware that TSM does not have to appear in writing in the references. It can be within the knowledge of ordinary skilled artisans in the applicable art. Here, there are teachings away from the combinations cited by the Examiner, as detailed in this argument with reference to specific cited teachings, and the absence in the prior art of claimed features. To simply reference "ordinary skill" does not meet the burden falling on a challenged patent

"to show by clear and convincing evidence that a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so. *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 82 USPQ2d 1321, 1330-1331 (Fed Cir. 2007) citing *Dystar Textilfarben GmbH v. C.H. Patrick Co.*, 464 F.3d 1356, 80 USPQ2d 1641.

Here, none of the cited prior art addresses the same problem solved by the claimed invention. The cited art teaches different solutions to different problems. Applicants urge it is not obvious to combine the cited features from the references of record and combine them to yield the claimed invention.

The dependent claims 2-4, 12-14 and 18 define the claims from which they depend. Claims 2-3, 12-14 and 18 define the present invention with enhanced specificity that further distinguishes over the cited art.

Claim 2 specifies that once there is a popping up of the detail settings on the display, the display control means transmits an instruction to the control means of the electronic apparatus to invalidate the interruption instruction detected via the interruption key. In other words, not only is the interrupt key displayed in the changed state, but it becomes inoperative, although still displayed. The Examiner cites paragraph [0043] of Beaudet and Figs. 4H-4J. However, this paragraph discusses a time of day (e.g., outside normal working hours) controlled lock-out of selection of a copy mode of operation. Screen 4K is associated with this mode of lock-out. No interrupt key is displayed.

Claim 3, dependent on claim 2, defines the reverse of the claim 2 operation, namely, that when the pop-up detail setting is complete, the interruption key is again made operational through the transmission of an instruction from the display control means to the control means for the electronic apparatus. The Examiner cites Beaudet, paragraphs [0041] and [0042] as teaching this feature. Applicants again note that the Beaudet screens 4C-4J referenced in these paragraphs are sequential screens, not pop-up detail settings. Further, while there is a mention of the "Interrupt Print Job" key shown in Figs. 4C and 4D, the function of claim 3 is not present. The closest appears to be the discussion in paragraph [0042] where pressing the "Interrupt Print Job" key on screen 4D is stated as causing a display of screen 4I, which, upon completion "of the current set," reverts to screen 4J, which has no display of the "Interrupt Print Job" key.

With respect to claim 4, Applicants agree that Beaudet teaches a soft interruption key. Claim 4 stands or falls with claim 1, from which it depends.

Claim 6, dependent on claim 4, defines the change of states of the interrupt key as a hiding of part of the key on performing the popping up. The Examiner cites Figs. 4H to 4J and paragraph [0043]. Applicants do not find a pop-up detail setting in any of screens 4J to 4J, or an interrupt key that is partially hidden in any of these screens, or described in paragraph [0043] as partially hidden. Applicants therefore do not find a teaching or suggestion of the features of claim 6 dependent from claim 4 and indirectly from claim 1.

Claim 9 depends from claim 1 and defines the change of display state of the interruption key on performing the popping up as an informing that interruption is unavailable. The Examiner cites again Beaudet paragraphs [0041] and [0042]. Screens 4C-4J are discussed in these paragraphs. Applicant found no screen where an interrupt key is displayed (as required in claim 1) and there is also displayed information as to its unavailability.

Claim 12 depends from claim 1. It specifies that the display control means causes the state of the interruption key to revert to its pre-popping-up state when the popping-up detail setting is completed. The Examiner cited Beaudet paragraphs [0041] and [0042] as teaching this feature. Applicants do not find a teaching of the claimed popping up detail setting display, nor a continued display of an interrupt key when a popping up is performed (or even when a change of the entire screen occurs), nor a direct reversion to screens 4C, 4D or 4J when the next screen, as the screen progression is described in the cited paragraph, is displayed and the "current" screen is "completed."

Claim 13 depends from claim 1 and defines the display apparatus as also having warning means that warns the user if the interrupt key is selected during the performance of a popping up. The Examiner cites paragraph [0040] of Beaudet as teaching this feature. However, Applicants find no warning that operates in conjunction

with a displayed interrupt key to warn that the interrupt key has already been selected and is in a changed state.

Claim 14 depends from claim 13, and specifies that the warning is a message. The Examiner cites the same paragraph [0040] of Beaudet. Applicants' analysis is the same as for claim 13. Claims 13 and 14 stand or fall together.

Claim 18 is dependent from claim 17. It specifies that the image forming apparatus is a digital photocopying machine. The Examiner cites the Beaudet abstract as teaching a digital photocopying machine. Actually, the Beaudet abstract describes that patent as directed to "[a]n electrophotographic copier/printer reproduction apparatus." Beaudet is directed to managing the use of this machine allowing both print and copy jobs. In the claimed digital photocopier, there are only copy jobs, and the entire rationale for the Beaudet apparatus fails.

SECOND ISSUE

CLAIMS 7-8 ARE NOT OBVIOUS WITHIN THE MEANING OF 35 U.S.C. §103 AS BY BEAUDET ET AL. [US PUBLISHED APPLICATION 2002/0048035] IN VIEW OF TEZUKA ET AL. [USP 5,845,078] AND FURTHER IN VIEW OF SATO ET AL. [JP 03175065]

The Examiner cites Sato as teaching the hard key of claim 7 and the change of state of a lamp to indicate the state of the interrupt key, as specified in claim 8, dependent on claim 7.

Sato describes a data buffer drive with an interrupt "button" 7 and a "lighting reception display lamp 13" that flashes when data reception is interrupted. The state of the button 7 itself does not change. Indeed it is not even clear that the Sato "button" 7 is a hard key. Further, while the Examiner states that there is a change in the Sato lamp in response to a popping up of detail setting, Applicants do not find this feature in the cited "Abstract; Constitution" of Sato. There is no change of state of an interruption key as a result of a selection of a detail setting key, or any other key. Nor is there any teaching or suggestion that the interrupt button of Sato can or should be used in the manner of Applicants' hard interrupt key and lamp in combination with the features of claim 1.

Given the foregoing arguments with respect to the teachings of the principal and secondary references to Beaudet and Tezuka, there is no reason to use these features in combination with Beaudet and Tezuka. Beaudet teaches an interrupt key that is a soft key that disappears; a hard key cannot. Tezuka teaches an interrupt key, but one used in a different way, to achieve a different operation, and solve a different technical problem.

Again, Sato is relevant only through the hindsight of the present invention, and claims 7 and 8 should be allowed for the same reason as claim 1 from which they depend.

THIRD ISSUE

CLAIMS 10 AND 11 ARE NOT OBVIOUS WITHIN THE MEANING OF 35 U.S.C. §103 AS BY BEAUDET ET AL. [US PUBLISHED APPLICATION 2002/0048035] IN VIEW OF TEZUKA ET AL. [USP 5,845,078] AND FURTHER IN VIEW OF HIRAYAMA [US PUBLISHED APPLICATION 2002/0050996]

The Examiner rejects claims 10 and 11 citing p. 3, para. [0039] of Hirayama '996 as disclosing the subject matter of these claims -- a change in "color thickness" or a dotted line of the interrupt key to denote a change of the state of this key.

Hirayama '996 relates to an information processing apparatus having a display apparatus with a tablet that interacts with a stylus to instruct a CPU to process stored information in different modes (Abstract, lines 1-5).

The cited paragraph 0039 does not disclose an interrupt key, nor one that changes state. It discloses "covering with a halftone dot meshing" keys "CANCEL" 78, "LAST" 79 and "START" 80 while a "FIRST" key 77 is enabled.

Applicants therefore urge that the Hirayama '996 reference does not teach the specific claimed subject matter, nor any reason to use the change of display state of any key with Beaudet and Tezuka in the manner of claim 10, dependent from claim 1, or claim 11, dependent from claim 1. Hirayama '996 is relevant at all only through the hindsight of the present invention.

FOURTH ISSUE

CLAIM 15 IS NOT OBVIOUS WITHIN THE MEANING OF 35 U.S.C. §103 AS BY BEAUDET ET AL. [US PUBLISHED APPLICATION 2002/0048035] IN VIEW OF TEZUKA ET AL. [USP 5,845,078] AND FURTHER IN VIEW OF SADAKUNI [USP 6,385,412]

The Examiner cites tertiary reference Sadakuni for the “warning means” of claim 15, dependent from claim 13, to warn a user who selects the interrupt key while popping up is being performed on the display.

More specifically, the Examiner cites use of a “warning sound” (Col. 8, lines 19-25). This warning is an advance warning of an “event to be executed” before it is executed (Col. 8, lines 9-15), e.g. events such as “auto power off,” “auto power save,” etc.

Applicants agree that a warning sound or visual indication per se is known. However, this feature 1) does not address the shortcoming of the prior art noted above with respect to claim 1 from which claim 15 depends indirectly. Nor does Sadakuni give any indication that an advance warning of an event about to be executed can or should be used with the detail setting, display, interrupt key and change of state interrupt key features of claims 1 and 13.

VIII. CLAIMS

A copy of the claims involved in the present appeal is attached hereto as Appendix A. The claims in Appendix A include the amendments filed by Applicant on June 12, 2007 and December 12, 2007.

Dated: *November 24, 2008*

Respectfully submitted,

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APPENDIX A**Claims Involved in the Appeal of Application Serial No. 10/603,721**

1. (previously presented) A user interfacing display apparatus for use in an electronic apparatus including (i) detail setting key for detecting what a user selects, and for performing detail setting of a job as to what a user selects, and (ii) control means, capable of performing a plurality of jobs respectively in accordance with desired detail settings, for suspending a job that is being processed or a job that is standing by and performing another job, in accordance with an interruption instruction, the user interfacing display apparatus comprising:

an interruption key for detecting the interruption instruction, and transmitting the interruption instruction to the control means, the interruption key being capable of changing a display state thereof;

a display section for displaying the desired detail settings; and

display control means for (iii) popping up, when the detail setting key that is associated with one of the detail settings of one of the plurality of jobs is selected, a detail item of that one of the detail settings on the display section, and (iv) changing the display state of the interruption key, as a result of said selecting of said detail setting key, while keeping the interruption key displayed on the display section.

2. (original) The user interfacing display apparatus as set forth in Claim 1, wherein:

on performing the popping-up on the display section, the display control means transmits to the control means an instruction to invalidate the interruption instruction detected via the interruption key.

3. (original) The user interfacing display apparatus as set forth in Claim 2, wherein:

on ending the popping-up after the detail setting is completed, the display control means transmits to the control means an instruction to validate the interruption instruction detected via the interruption key.

4. (original) The user interfacing display apparatus as set forth in Claim 1, wherein:

the interruption key is a soft key that is displayed on the display section.

6. (previously presented) The user interfacing display apparatus as set forth in Claim 4, wherein:

on performing the popping-up on the display section, the display control means hides part of the interruption key by performing the popping-up.

7. (original) The user interfacing display apparatus as set forth in Claim 1, wherein:

the interruption key is a hard key provided in the display section.

8. (original) The user interfacing display apparatus as set forth in Claim 7, wherein:

on performing the popping-up on the display section, the display control means switches over a lamp indicating whether the interruption key is available or unavailable.

9. (original) The user interfacing display apparatus as set forth in Claim 1, wherein:

on performing the popping-up on the display section, the display control means changes the display state of the interruption key to an unavailability display state informing that interruption is unavailable.

10. (original) The user interfacing display apparatus as set forth in Claim 9:

the changing of the display state of the interruption key to the unavailability display state is performed by lighting a color thickness of the interruption key from a predetermined color thickness in which the interruption key has been displayed.

11. (original) The user interfacing display apparatus as set forth in Claim 9, wherein:

the changing of the display state of the interruption key to the unavailability display state is performed by using a dotted line.

12. (original) The user interfacing display apparatus as set forth in Claim 1, wherein:

on ending the popping-up after the detail setting is completed, the display control means changes back the display state of the interruption key to a display state displayed before the popping-up is performed.

13. (original) The user interfacing display apparatus as set forth in Claim 1, further comprising:

warning means for warning the user, so that the display control means warns the user by using the warning means when detecting that the interruption key is selected while the popping-up is being performed on the display section.

14. (original) The user interfacing display apparatus as set forth in Claim 13, wherein:

the warning is performed by using a warning message.

15. (original) The user interfacing display apparatus as set forth in Claim 13, wherein:

the warning is performed by using a warning sound.

16. (previously presented) A user interfacing display apparatus for use in an electronic apparatus including (i) detail setting key for detecting

what a user selects, and for performing detail setting of a job as to what a user selects, and (ii) a control section, capable of performing a plurality of jobs respectively in accordance with desired detail settings, for suspending a job that is being processed or a job that is standing by and performing another job, in accordance with an interruption instruction, the user interfacing display apparatus comprising:

- an interruption key for detecting the interruption instruction, and transmitting the interruption instruction to the control section, the interruption key being capable of changing a display state thereof;

- a display section for displaying the desired detail settings; and

- a display control section for (iii) popping up, when the detail setting key that is associated with one of the detail settings of one of the plurality of jobs is selected, a detail item of that one of the detail settings on the display section , and (iv) changing the display state of the interruption key, as a result of said selecting of said detail setting key, while keeping the interruption key displayed on the display section.

17. (previously presented) An image forming apparatus, which is an electronic apparatus, comprising (i) detail setting key for detecting what a user selects, and for performing detail setting of a job as to what a user selects, and (ii) control means, capable of performing a plurality of jobs respectively in accordance with desired detail settings, for suspending a job that is being processed or a job that is standing by and performing

another job, in accordance with an interruption instruction, the image forming apparatus comprising:

a user interfacing display apparatus including:

an interruption key for detecting the interruption instruction, and transmitting the interruption instruction to the control means, the interruption key being capable of changing a display state thereof;

a display section for displaying the desired detail settings; and

display control means for (iii) popping up, when the detail setting key that is associated with one of the detail settings of one of the plurality of jobs is selected, a detail item of that one of the detail settings on the display section , and (iv) changing the display state of the interruption key as a result of said selecting of said detail setting key, while keeping the interruption key displayed on the display section.

18. (original) The image forming apparatus as set forth in Claim 17 being a digital photocopying machine.

APPENDIX B

No evidence pursuant to §§ 1.130, 1.131, or 1.132 or entered by or relied upon by the examiner is being submitted.

APPENDIX C

No related proceedings are referenced in II. above, hence copies of decisions in related proceedings are not provided.